

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



196  
R 31 Fsmo

# **WATER SUPPLY OUTLOOK FOR MONTANA**



**U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE**

Collaborating with  
**MONTANA AGRICULTURAL EXPERIMENT STATION**

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF  
**MAR. 1, 1974**



## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*Cover Photo: Snow Surveyors near Ship Creek,  
Alaska snow course.*

SCS PHOTO A-172-11

## PUBLISHED BY SOIL CONSERVATION SERVICE

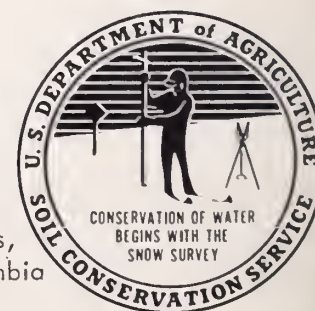
The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 511 N. W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

## PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



# ***WATER SUPPLY OUTLOOK FOR MONTANA***

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued by*

**KENNETH E. GRANT**

ADMINISTRATOR  
SOIL CONSERVATION SERVICE  
WASHINGTON, D.C.

|||||  
*Released by*

**A. B. LINFORD**

STATE CONSERVATIONIST  
SOIL CONSERVATION SERVICE  
Bozeman, Montana

*In Cooperation with*

**J. A. ASLESON**

DIRECTOR  
Montana Agricultural Experiment Station

|||||  
*Report prepared by*

**PHILLIP E. FARNES, Snow Survey Supervisor**

and

**BERNARD A. SHAFER, Assistant Snow Survey Supervisor**

SOIL CONSERVATION SERVICE  
P.O. Box 98  
Bozeman, Montana 59715

# THE ARTS AND CRAFTS

OF THE  
UNITED STATES

OF THE  
UNITED STATES

OF THE  
UNITED STATES

OF THE  
UNITED STATES

OF THE  
UNITED STATES

OF THE  
UNITED STATES

OF THE  
UNITED STATES

OF THE  
UNITED STATES

OF THE  
UNITED STATES

OF THE  
UNITED STATES

## CONTENTS

	Page
MONTANA WATER SUPPLY OUTLOOK . . . . .	1-2
PROSPECTIVE STREAMFLOW FORECASTS . . . . .	3
SUMMARY OF SNOW MEASUREMENTS . . . . .	4
MOUNTAIN SNOW WATER EQUIVALENT . . . . .	5
SOIL MOISTURE . . . . .	6
RESERVOIR STORAGE . . . . .	7
STREAMFLOW FORECASTS . . . . .	8-14
SNOW . . . . .	15-20
SNOW COURSES AND RELATED DATA MEASURING SITES	
COOPERATORS . . . . .	Inside Back Cover





MONTANA WATER SUPPLY OUTLOOK  
March 1, 1974

\* \* \* \* \*

\* The mountain snowpack ranges from well above average  
\* in northwestern Montana to below average in the  
\* southcentral area. The highest snowpack is on the  
\* Kootenai, Bitterroot and lower Clark Fork drainages.  
\* All snow courses in these drainages have water  
\* equivalents below record levels set in 1972.  
\* Along the Continental Divide, and on the Madison  
\* and Ruby drainages, snowpack is above average.  
\* The remainder of the state's snowpack is near aver-  
\* age with the exception of the headwaters of the  
\* Musselshell and the middle and lower reaches of the  
\* Yellowstone drainage, where water equivalents are  
\* below average.

\* Streamflow is forecasted to be above average west  
\* of the Continental Divide and near average over  
\* nearly all of the remainder of the state, with the  
\* exception of the Tongue, Powder and little Big Horn  
\* drainages. In these areas spring and summer stream-  
\* flow is expected to be below average.

\* \* \* \* \*

COLUMBIA RIVER DRAINAGE

Snow - Snowpack in general exceeds 130 percent of average on the Kootenai, Flathead, Bitterroot and lower Clark Fork drainages. On the upper Clark Fork, snowpack is near to slightly above average. Mountain precipitation during February was above average over most of the west side drainages. High elevation snow courses showed the most increase percentagewise over February 1 readings. Many avalanches were triggered at higher elevations by heavy snowfalls near monthend.

Soils beneath the snowpack remain wetter than normal with some areas being near field capacity as a result of fall moisture and January snowmelt.

Streamflow - Nearly all streams are forecasted to have spring and summer flows 10 to 20 percent above average, with the exception of the upper Clark Fork and the Blackfoot. Streamflow in these areas should be near average. Conditions are favorable for filling all irrigation reservoirs.



## MISSOURI RIVER DRAINAGE

Snow - Snowpack along the Continental Divide and on the Madison and Ruby drainages is near 20 percent above average. The Tobacco Root Mountains in southwestern Montana have a winter accumulation exceeding 30 percent of average. The remainder of the area has near to a slightly above average snowpack. The snowpack is distributed with slightly below or near average water equivalent at lower elevations and average or above average at the higher elevations.

Soils remain wetter than normal beneath the snowpack, particularly at lower elevations from rainfall and some snowmelt.

Streamflow - Spring and summer runoff is forecasted to be near or slightly above average over the entire area. With this potential water supply irrigation reservoirs will recover from last year's record low levels and refill with this spring's runoff.

## YELLOWSTONE RIVER DRAINAGE

Snow - Snowpack is near or below average over the entire basin. Snow water equivalents in the headwaters of the upper Yellowstone are near average but falls to below average on the lower reaches of the Shields, Boulder, Stillwater and the Bighorn River drainages. A very deficient snowpack area is located on the northeastern face of the Beartooth Mountains and headwaters of the little Bighorn River where water content at some snow courses is only 60 to 70 percent of average.

Streamflow - The Yellowstone and nearly all major tributaries are forecasted to have snowmelt runoff near average. This is a result of good high elevation snowpack in main water producing zones and favorable soil moisture beneath the snowpack. Below average runoff is expected for streams with headwaters along the northeastern face of the Beartooth and in the Little Big Horn drainage.

1870

1871

1872

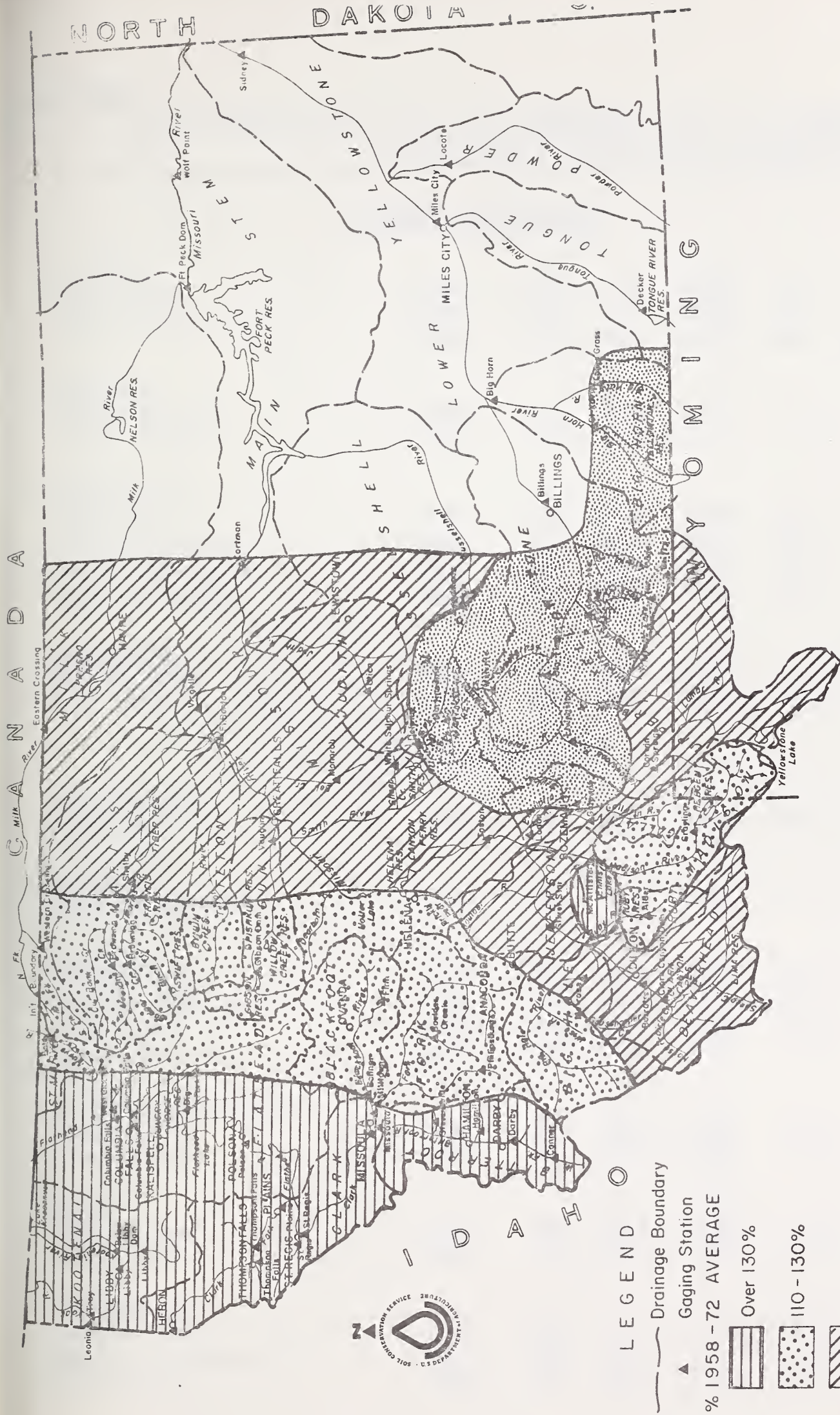
1873

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average
<u>COLUMBIA RIVER DRAINAGE</u>			
Kootenai	27	175	131
Flathead	20	180	129
Upper Clark Fork	20	170	108
Lower Clark Fork	14	214	134
Bitterroot	13	184	130
<u>MISSOURI RIVER DRAINAGE</u>			
Jefferson	49	169	113
Madison	23	142	109
Gallatin	14	129	87
Missouri Main Stem	12	192	109
Judith-Musselshell	14	168	102
Marias-Teton-Sun	8	225	111
Milk (Headwaters)	2	190	108
<u>YELLOWSTONE RIVER DRAINAGE</u>			
Yellowstone	28	143	100
Little Big Horn	32	129	86
-4-			







MONTANA



MOUNTAIN SNOW WATER EQUIVALENT  
AS OF  
MARCH 1, 1974





# SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average †

## COLUMBIA RIVER BASIN

<u>Kootenai</u>							
Baree Trail	3800	48	7.5	2/28	6.5	4.9	6.2
Murphy Lake R. S.	3000	48	22.6	2/28	20.3	19.2	20.2
Raven	3050	48	23.0	3/04	18.2	13.4	19.1

<u>Flathead</u>							
Desert Mountain	5600	54	8.4	2/26	8.8	6.7	7.2
Marias Pass	5250	54	6.5	-	-	6.0	5.4

<u>Clark Fork</u>							
Black Pine	7100	48	10.0	2/26	8.1	7.2	7.4
Lubrecht Forest	4100	48	26.8	3/04	15.4	15.0	15.2
Seeley Lake R. S.	4030	48	11.9	3/01	9.8	6.6	7.7
Skalkaho Summit	7260	48	10.8	2/25	10.2	9.7	9.6

<u>Bitterroot</u>							
Gibbons Pass	7100	48	7.1	2/26	5.8	2.7	4.8
Lolo Pass	5250	48	10.6	3/04	6.8	5.4	6.0

## MISSOURI RIVER BASIN

<u>Beaverhead</u>							
Lakeview	6700	48	15.3	2/28	16.9	15.7	9.2

<u>Madison</u>							
West Yellowstone	6700	48	6.5	2/28	2.8	2.5	2.5

<u>Gallatin</u>							
Bridger Bowl	7250	48	17.0	2/28	15.2	16.2	16.2
College Site No. 2	4856	54	17.7	3/01	16.4	15.7	13.8
Lick Creek	6860	48	18.8	2/26	14.3	13.6	16.3
Twenty-One Mile	7150	48	10.0	2/28	7.8	6.9	4.1

<u>Missouri Main Stem</u>							
Kings Hill	7420	48	11.8	2/27	8.4	8.4	6.6
Stemple Pass	6350	48	5.9	3/01	5.1	3.4	4.0

<u>Milk</u>							
Beaver Creek	3950	48	20.9	2/26	7.8	7.6	11.2
Rocky Boy	4700	36	10.1	2/26	8.7	5.8	6.6

<u>Yellowstone</u>							
Battle Ridge	6020	48	17.6	2/28	13.8	11.9	13.4
Northeast Entrance	7350	48	9.4	-	-	7.8	6.1
PMC Dryland	3700	48	20.7	2/25	7.4	-	-

Section 1: General Information					
1.1	1.2	1.3	1.4	1.5	1.6
2.1	2.2	2.3	2.4	2.5	2.6
3.1	3.2	3.3	3.4	3.5	3.6
4.1	4.2	4.3	4.4	4.5	4.6
5.1	5.2	5.3	5.4	5.5	5.6

Section 2: Detailed Data					
6.1	6.2	6.3	6.4	6.5	6.6
7.1	7.2	7.3	7.4	7.5	7.6
8.1	8.2	8.3	8.4	8.5	8.6
9.1	9.2	9.3	9.4	9.5	9.6
10.1	10.2	10.3	10.4	10.5	10.6
11.1	11.2	11.3	11.4	11.5	11.6
12.1	12.2	12.3	12.4	12.5	12.6
13.1	13.2	13.3	13.4	13.5	13.6
14.1	14.2	14.3	14.4	14.5	14.6
15.1	15.2	15.3	15.4	15.5	15.6



**RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH**

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average

**COLUMBIA RIVER BASIN**

Kootenai	Koocanusa	3,522.0	1,561.0	270.3	-
Flathead	Hungry Horse	3,428.0	2,211.0	2,062.0	2,329.0
	Flathead Lake	1,791.0	1,221.0	1,010.0	1,009.0
	Camas (4)	45.2	15.8	31.8	24.5
	Mission Valley (8)	100.3	41.6	32.2	34.9
Clark Fork	Georgetown Lake	31.0	19.2	24.7	25.3
	Lower Willow Creek	4.6	2.9	0.3	1.2
	Noxon Rapids	334.6	301.4	320.6	300.6
	Nevada Creek	12.6	-	0.3	5.6
Bitterroot	Como	34.9	-	-	13.7
	Painted Rocks	31.7	0	15.0	21.3

**MISSOURI RIVER BASIN**

Beaverhead	Clark Canyon	328.9	144.9	154.4	141.4
	Lima	84.0	49.1	45.7	31.9
Ruby	Ruby	38.8	29.0	26.5	27.4
Madison	Hebgen Lake	377.5	229.8	253.8	202.6
	Ennis Lake	41.0	33.9	24.0	37.6
Gallatin	Middle Creek	8.0	4.4	3.0	3.6
Missouri	Canyon Ferry	2,043.0	1,576.0	1,419.0	1,608.0
	Hauser & Helena	61.9	63.0	61.3	57.4
	Lake Helena	10.4	10.9	10.2	9.0
	Holter Lake	81.9	80.7	80.8	51.2
	Smith River	10.7	2.9	4.7	6.3
	Bair	7.0	2.5	4.2	4.7
	Martinsdale	23.1	7.5	9.7	7.5
	Deadman's Basin	72.2	37.1	55.4	46.6
	Fort Peck	19,410.0	15,560.0	16,550.0	13,110.0
Sun	Gibson	105.0	36.1	51.9	42.2
	Willow Creek	32.3	20.8	22.3	19.5
	Pishkun	32.0	3.6	17.1	17.4
Marias	Lower Two Medicine	16.6	-	-	-
	Four Horns	19.2	-	-	-
	Swift	30.0	-	16.3	17.9
	Lake Frances	112.0	-	93.8	78.3
	Tiber	1,347.0	533.6	490.3	576.8
Milk	Fresno	127.2	12.8	77.2	56.8
	Nelson	66.8	19.4	45.2	41.2
	Lake Sherburne	66.1	33.4	13.7	21.9
Yellowstone	Mystic Lake	20.8	10.4	5.3	7.9
	Tongue River	68.0	-	27.9	32.6
	Cooney	27.5	12.5	16.0	14.7
Bighorn	Bighorn Lake	1,356.0	900.3	886.0	800.8



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average

## COLUMBIA RIVER BASIN

KOOTENAI RIVER					
Libby (near) (2)	8870	119	Apr-Sept	5252	7456
Below Libby Dam	7700	120	Apr-July	4443	6417
	6000	120	Apr-June	3472	5011
FISHER RIVER					
Libby (near)	345	121	Apr-Sept		286
	330	123	Apr-July		269
YAAK RIVER					
Troy (near)	690	121	Apr-Sept		568
	670	123	Apr-July		544
KOOTENAI RIVER					
Leonia (at) (2)	10800	119	Apr-Sept		9073
	9600	121	Apr-July		7957
	7700	120	Apr-June		6431
FLINT CREEK					
Boulder Creek (below) (3)	78.0	109	Apr-Sept		71.6
	63.0	112	Apr-July		56.1
MIDDLE FORK ROCK CREEK					
Philipsburg (near)	86.0	113	Apr-Sept		75.9
	78.0	114	Apr-July		68.6
NEVADA CREEK					
Finn (near)	25.5	118	Apr-Sept		21.6
	24.0	119	Apr-July		20.1
BLACKFOOT RIVER					
Bonner (near)	1050	102	Apr-Sept	420	1031
	950	102	Apr-July	363	934
	820	101	Apr-June	319	814
CLARK FORK RIVER					
Milltown (above) (4)	880	111	Apr-Sept	298	792
	780	113	Apr-July	254	690
	665	113	Apr-June	221	590
CLARK FORK RIVER					
Missoula (above)	1930	106	Apr-Sept	718	1823
	1730	107	Apr-July	617	1624
	1485	106	Apr-June	540	1404

(2) Adjusted for storage in Lake Koocanusa.

(3) Sum Flint Creek at Maxville and Boulder Creek at Maxville.

(4) Difference in observed flow Clark Fork above Missoula and Blackfoot near Bonner.

Table 1: Summary of Data					Notes
ID	Category	Value 1	Value 2	Value 3	
1	A	10	20	30	
2	B	15	25	35	
3	A	20	30	40	
4	B	25	35	45	
5	A	30	40	50	
6	B	35	45	55	
7	A	40	50	60	
8	B	45	55	65	
9	A	50	60	70	
10	B	55	65	75	
11	A	60	70	80	
12	B	65	75	85	
13	A	70	80	90	
14	B	75	85	95	
15	A	80	90	100	
16	B	85	95	105	
17	A	90	100	110	
18	B	95	105	115	
19	A	100	110	120	
20	B	105	115	125	

Table 2: Detailed Data

ID	Category	Value 1	Value 2	Value 3	Value 4	Value 5
1	A	10	20	30	40	50
2	B	15	25	35	45	55
3	A	20	30	40	50	60
4	B	25	35	45	55	65
5	A	30	40	50	60	70
6	B	35	45	55	65	75
7	A	40	50	60	70	80
8	B	45	55	65	75	85
9	A	50	60	70	80	90
10	B	55	65	75	85	95
11	A	60	70	80	90	100
12	B	65	75	85	95	105
13	A	70	80	90	100	110
14	B	75	85	95	105	115
15	A	80	90	100	110	120
16	B	85	95	105	115	125
17	A	90	100	110	120	130
18	B	95	105	115	125	135
19	A	100	110	120	130	140
20	B	105	115	125	135	145



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average
WEST FORK BITTERROOT RIVER					
Conner (near) (5)	225	131	Apr-Sept		172
	205	131	Apr-July		156
BITTERROOT RIVER					
Darby (near)	750	128	Apr-Sept	301	584
	700	129	Apr-July	266	542
	605	126	Apr-June	239	479
SKALKAHO CREEK					
Hamilton (near)	66.0	117	Apr-Sept		56.6
	59.0	119	Apr-July		49.6
BURNT FORK CREEK					
Stevensville (near) (10)	43.0	122	Apr-Sept		35.3
	38.0	123	Apr-July		31.0
BITTERROOT RIVER					
Missoula (at) (6)	1850	121	Apr-Sept		1527
	1730	123	Apr-July		1412
	1500	121	Apr-June		1236
CLARK FORK RIVER					
Missoula (below)	3780	113	Apr-Sept		3350
	3460	114	Apr-July		3036
	2985	113	Apr-June		2640
ST. REGIS RIVER					
St. Regis (near)	420	129	Apr-Sept		325
	400	130	Apr-July		308
CLARK FORK RIVER					
St. Regis (at)	5350	119	Apr-Sept	1809	4507
	4900	120	Apr-July	1564	4087
	4250	119	Apr-June	1367	3563
NORTH FORK FLATHEAD RIVER					
Columbia Falls (near)	2300	116	Apr-Sept		1991
	2100	116	Apr-July		1813
	1780	115	Apr-June		1551
MIDDLE FORK FLATHEAD RIVER					
West Glacier (near)	2100	110	Apr-Sept	1324	1917
	1950	110	Apr-July	1222	1768
	1650	109	Apr-June	1061	1514
SOUTH FORK FLATHEAD RIVER					
Columbia Falls (near) (7)	2650	111	Apr-Sept	1450	2378
	2500	112	Apr-July	1374	2240
	2200	111	Apr-June	1248	1984

(5) Adjusted for storage in Painted Rocks Reservoir.

(6) Difference in observed flow Clark Fork above and below Missoula.

(7) Adjusted for storage in Hungry Horse Reservoir.

(10) Adjusted for diversion into Sunset Highline Canal.





# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average
FLATHEAD RIVER					
Columbia Falls (at) (7)	7200	112	Apr-Sept	4164	6421
	6700	113	Apr-July	3875	5942
	5800	113	Apr-June	3435	5151
SWAN RIVER					
Big Fork (near)	840	117	Apr-Sept		717
	750	119	Apr-July		630
FLATHEAD RIVER					
Polson (near) (8)	8800	115	Apr-Sept	4678	7648
	8150	115	Apr-July	4430	7082
	6900	113	Apr-June	3910	6113
CLARK FORK RIVER					
Plains (near) (8)	15000	119	Apr-Sept	6703	12601
	13700	119	Apr-July	6104	11523
	11700	118	Apr-June	5354	9934
THOMPSON RIVER					
Thompson Falls (near)	350	126	Apr-Sept		277
	320	129	Apr-July		248
PROSPECT CREEK					
Thompson Falls (at)	195	133	Apr-Sept		147
	185	135	Apr-July		137
CLARK FORK RIVER					
Whitehorse Rapids (at) (9)	16800	117	Apr-Sept		14336
	15500	118	Apr-July		13086
	13200	117	Apr-June		11325

(7) Adjusted for storage in Hungry Horse Reservoir.

(8) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.

(9) Adjusted for storage in Hungry Horse, Flathead Lake and Noxon Rapids Reservoirs.

Date		Time		Location	
1911	1912	1913	1914	1915	1916

1911	1912	1913	1914	1915	1916
1917	1918	1919	1920	1921	1922
1923	1924	1925	1926	1927	1928
1929	1930	1931	1932	1933	1934
1935	1936	1937	1938	1939	1940
1941	1942	1943	1944	1945	1946
1947	1948	1949	1950	1951	1952
1953	1954	1955	1956	1957	1958
1959	1960	1961	1962	1963	1964
1965	1966	1967	1968	1969	1970
1971	1972	1973	1974	1975	1976
1977	1978	1979	1980	1981	1982
1983	1984	1985	1986	1987	1988
1989	1990	1991	1992	1993	1994
1995	1996	1997	1998	1999	2000
2001	2002	2003	2004	2005	2006
2007	2008	2009	2010	2011	2012
2013	2014	2015	2016	2017	2018
2019	2020	2021	2022	2023	2024
2025	2026	2027	2028	2029	2030

The following table shows the number of persons who have been  
 admitted to the hospital during the year 1911. The total number  
 of admissions is 1,234. The number of admissions by sex is as  
 follows:

Sex	Admissions
Male	678
Female	556
Total	1,234

# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average

## MISSOURI RIVER BASIN

### BEAVERHEAD RIVER

Grant (near) (11) (12)

140	96	Apr-Sept	133	145
125	98	Apr-July	114	127

### RUBY RIVER

Alder (near)

102	109	Apr-Sept		93.9
87.0	110	Apr-July		79.4

### BIG HOLE RIVER

Melrose (near)

790	106	Apr-Sept		748
740	107	Apr-July		694

### BIRCH CREEK

Glen (near)

14.8	108	Apr-Sept		13.7
12.4	108	Apr-July		11.5

### JEFFERSON RIVER

Silver Star (at) (12)

980	101	Apr-Sept		970
870	101	Apr-July		865

### WILLOW CREEK

Harrison (near)

22.6	120	Apr-Sept		18.9
20.5	120	Apr-July		17.1

### MADISON RIVER

Grayling (near) (13)

535	111	Apr-Sept	440	480
430	115	Apr-July	335	374

### MADISON RIVER

McAllister (near) (14)

940	114	Apr-Sept		828
760	117	Apr-July		652

### GALLATIN RIVER

Gateway (near)

520	98	Apr-Sept		531
450	100	Apr-July		451

(11) Adjusted for storage in Lima Reservoir.

(12) Adjusted for storage in Clark Canyon Reservoir.

(13) Adjusted for storage in Hebgen Lake.

(14) Adjusted for storage in Hebgen and Ennis Lakes.



Table 1: Data Summary

Year	Category	Value 1	Value 2	Value 3	Value 4
1990	Category A	100	200	300	400
1991	Category A	110	210	310	410
1992	Category A	120	220	320	420
1993	Category A	130	230	330	430
1994	Category A	140	240	340	440
1995	Category A	150	250	350	450
1996	Category A	160	260	360	460
1997	Category A	170	270	370	470
1998	Category A	180	280	380	480
1999	Category A	190	290	390	490
2000	Category A	200	300	400	500
2001	Category A	210	310	410	510
2002	Category A	220	320	420	520
2003	Category A	230	330	430	530
2004	Category A	240	340	440	540
2005	Category A	250	350	450	550
2006	Category A	260	360	460	560
2007	Category A	270	370	470	570
2008	Category A	280	380	480	580
2009	Category A	290	390	490	590
2010	Category A	300	400	500	600
2011	Category A	310	410	510	610
2012	Category A	320	420	520	620
2013	Category A	330	430	530	630
2014	Category A	340	440	540	640
2015	Category A	350	450	550	650
2016	Category A	360	460	560	660
2017	Category A	370	470	570	670
2018	Category A	380	480	580	680
2019	Category A	390	490	590	690
2020	Category A	400	500	600	700
2021	Category A	410	510	610	710
2022	Category A	420	520	620	720
2023	Category A	430	530	630	730
2024	Category A	440	540	640	740
2025	Category A	450	550	650	750
2026	Category A	460	560	660	760
2027	Category A	470	570	670	770
2028	Category A	480	580	680	780
2029	Category A	490	590	690	790
2030	Category A	500	600	700	800
2031	Category A	510	610	710	810
2032	Category A	520	620	720	820
2033	Category A	530	630	730	830
2034	Category A	540	640	740	840
2035	Category A	550	650	750	850
2036	Category A	560	660	760	860
2037	Category A	570	670	770	870
2038	Category A	580	680	780	880
2039	Category A	590	690	790	890
2040	Category A	600	700	800	900
2041	Category A	610	710	810	910
2042	Category A	620	720	820	920
2043	Category A	630	730	830	930
2044	Category A	640	740	840	940
2045	Category A	650	750	850	950
2046	Category A	660	760	860	960
2047	Category A	670	770	870	970
2048	Category A	680	780	880	980
2049	Category A	690	790	890	990
2050	Category A	700	800	900	1000
2051	Category A	710	810	910	1010
2052	Category A	720	820	920	1020
2053	Category A	730	830	930	1030
2054	Category A	740	840	940	1040
2055	Category A	750	850	950	1050
2056	Category A	760	860	960	1060
2057	Category A	770	870	970	1070
2058	Category A	780	880	980	1080
2059	Category A	790	890	990	1090
2060	Category A	800	900	1000	1100
2061	Category A	810	910	1010	1110
2062	Category A	820	920	1020	1120
2063	Category A	830	930	1030	1130
2064	Category A	840	940	1040	1140
2065	Category A	850	950	1050	1150
2066	Category A	860	960	1060	1160
2067	Category A	870	970	1070	1170
2068	Category A	880	980	1080	1180
2069	Category A	890	990	1090	1190
2070	Category A	900	1000	1100	1200
2071	Category A	910	1010	1110	1210
2072	Category A	920	1020	1120	1220
2073	Category A	930	1030	1130	1230
2074	Category A	940	1040	1140	1240
2075	Category A	950	1050	1150	1250
2076	Category A	960	1060	1160	1260
2077	Category A	970	1070	1170	1270
2078	Category A	980	1080	1180	1280
2079	Category A	990	1090	1190	1290
2080	Category A	1000	1100	1200	1300
2081	Category A	1010	1110	1210	1310
2082	Category A	1020	1120	1220	1320
2083	Category A	1030	1130	1230	1330
2084	Category A	1040	1140	1240	1340
2085	Category A	1050	1150	1250	1350
2086	Category A	1060	1160	1260	1360
2087	Category A	1070	1170	1270	1370
2088	Category A	1080	1180	1280	1380
2089	Category A	1090	1190	1290	1390
2090	Category A	1100	1200	1300	1400
2091	Category A	1110	1210	1310	1410
2092	Category A	1120	1220	1320	1420
2093	Category A	1130	1230	1330	1430
2094	Category A	1140	1240	1340	1440
2095	Category A	1150	1250	1350	1450
2096	Category A	1160	1260	1360	1460
2097	Category A	1170	1270	1370	1470
2098	Category A	1180	1280	1380	1480
2099	Category A	1190	1290	1390	1490
2100	Category A	1200	1300	1400	1500
2101	Category A	1210	1310	1410	1510
2102	Category A	1220	1320	1420	1520
2103	Category A	1230	1330	1430	1530
2104	Category A	1240	1340	1440	1540
2105	Category A	1250	1350	1450	1550
2106	Category A	1260	1360	1460	1560
2107	Category A	1270	1370	1470	1570
2108	Category A	1280	1380	1480	1580
2109	Category A	1290	1390	1490	1590
2110	Category A	1300	1400	1500	1600
2111	Category A	1310	1410	1510	1610
2112	Category A	1320	1420	1520	1620
2113	Category A	1330	1430	1530	1630
2114	Category A	1340	1440	1540	1640
2115	Category A	1350	1450	1550	1650
2116	Category A	1360	1460	1560	1660
2117	Category A	1370	1470	1570	1670
2118	Category A	1380	1480	1580	1680
2119	Category A	1390	1490	1590	1690
2120	Category A	1400	1500	1600	1700
2121	Category A	1410	1510	1610	1710
2122	Category A	1420	1520	1620	1720
2123	Category A	1430	1530	1630	1730
2124	Category A	1440	1540	1640	1740
2125	Category A	1450	1550	1650	1750
2126	Category A	1460	1560	1660	1760
2127	Category A	1470	1570	1670	1770
2128	Category A	1480	1580	1680	1780
2129	Category A	1490	1590	1690	1790
2130	Category A	1500	1600	1700	1800
2131	Category A	1510	1610	1710	1810
2132	Category A	1520	1620	1720	1820
2133	Category A	1530	1630	1730	1830
2134	Category A	1540	1640	1740	1840
2135	Category A	1550	1650	1750	1850
2136	Category A	1560	1660	1760	1860
2137	Category A	1570	1670	1770	1870
2138	Category A	1580	1680	1780	1880
2139	Category A	1590	1690	1790	1890
2140	Category A	1600	1700	1800	1900
2141	Category A	1610	1710	1810	1910
2142	Category A	1620	1720	1820	1920
2143	Category A	1630	1730	1830	1930
2144	Category A	1640	1740	1840	1940
2145	Category A	1650	1750	1850	1950
2146	Category A	1660	1760	1860	1960
2147	Category A	1670	1770	1870	1970
2148	Category A	1680	1780	1880	1980
2149	Category A	1690	1790	1890	1990
2150	Category A	1700	1800	1900	2000
2151	Category A	1710	1810	1910	2010
2152	Category A	1720	1820	1920	2020
2153	Category A	1730	1830	1930	2030
2154	Category A	1740	1840	1940	2040
2155	Category A	1750	1850	1950	2050
2156	Category A	1760	1860	1960	2060
2157	Category A	1770	1870	1970	2070
2158	Category A	1780	1880	1980	2080
2159	Category A	1790	1890	1990	2090
2160	Category A	1800	1900	2000	2100
2161	Category A	1810	1910	2010	2110
2162	Category A	1820	1920	2020	2120
2163	Category A	1830	1930	2030	2130
2164	Category A	1840	1940	2040	2140
2165	Category A	1850	1950	2050	2150
2166	Category A	1860	1960	2060	2160
2167	Category A	1870	1970	2070	2170
2168	Category A	1880	1980	2080	2180
2169	Category A	1890	1990	2090	2190
2170	Category A	1900	2000	2100	2200
2171	Category A	1910	2010	2110	2210
2172	Category A	1920	2020	2120	2220
2173	Category A	1930	2030	2130	2230
2174	Category A	1940	2040	2140	2240
2175	Category A	1950	2050	2150	2250
2176	Category A	1960	2060	2160	2260
2177	Category A	1970	2070	2170	2270
2178	Category A	1980	2080	2180	2280
2179	Category A	1990	2090	2190	2290
2180	Category A	2000	2100	2200	2300
2181	Category A	2010	2110	2210	2310
2182	Category A	2020	2120	2220	2320
2183	Category A	2030	2130	2230	2330
2184	Category A	2040	2140	2240	2340
2185	Category A	2050	2150	2250	2350
2186	Category A	2060	2160	2260	2360
2187	Category A	2070	2170	2270	2370
2188	Category A	2080	2180	2280	2380
2189	Category A	2090	2190	2290	2390
2190	Category A	2100	2200	2300	2400
2191	Category A	2110	2210	2310	2410
2192	Category A	2120	2220	2320	2420
2193	Category A	2130	2230	2330	2430
2194	Category A	2140	2240	2340	2440
2195	Category A	2150	2250	2350	2450
2196	Category A	2160	2260	2360	2460
2197	Category A	2170	2270	2370	2470
2198	Category A	2180	2280	2380	2480
2199	Category A	2190	2290	2390	2490
2200	Category A	2200	2300	2400	2500
2201	Category A	2210	2310	2410	2510
2202	Category A	2220	2320	2420	2520
2203	Category A	2230	2330	2430	2530
2204	Category A	2240	2340	2440	2540
2205	Category A	2250	2350	2450	2550
2206	Category A	2260	2360	2460	2560
2207	Category A	2270	2370	2470	2570
2208	Category A	2280	2380	2480	2580
2209	Category A	2290	2390	2490	2590
2210	Category A	2300	2400	2500	2600
2211	Category A	2310	2410	2510	2610
2212	Category A	2320			



# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average
HYALITE CREEK					
Bozeman (near) (15)	40.0	90	Apr-Sept		44.2
	35.0	92	Apr-July		38.2
GALLATIN RIVER					
Logan (at)	550	96	Apr-Sept		573
	475	98	Apr-July		487
MISSOURI RIVER					
Toston (at) (16)	2530	104	Apr-Sept	1804	2432
	2200	104	Apr-July	1431	2109
SHEEP CREEK					
White Sulphur Springs (near)	19.8	96	Apr-Sept		20.6
	17.2	96	Apr-July		18.0
SUN RIVER					
Gibson Dam (at) (17)	630	107	Apr-Sept	285	590
	580	107	Apr-July	258	541
BELT CREEK					
Monarch (near)	115	93	Apr-Sept		123
	105	93	Apr-July		113
MISSOURI RIVER					
Fort Benton (at) (18)	3750	102	Apr-Sept		3690
	3260	104	Apr-July		3123
TWO MEDICINE CREEK					
Browning (near) (19)	278	110	Apr-Sept		253
	265	110	Apr-July		240
BADGER CREEK					
Browning (near)	141	108	Apr-Sept		130
	122	108	Apr-July		113
MARIAS RIVER					
Shelby (near) (20)	615	110	Apr-Sept		559
	590	110	Apr-July		538

- (15) Adjusted for storage in Middle Creek Reservoir.
- (16) Adjusted for storage in Hebgen and Ennis Lakes and Clark Canyon Reservoir.
- (17) Adjusted for storage in Gibson Reservoir and diversions.
- (18) Adjusted for storage in Canyon Ferry Reservoir.
- (19) Adjusted for storage in Two Medicine Reservoir and diversions into Two Medicine Canal.
- (20) Adjusted for storage in Two Medicine, Four Horns, Lake Frances and Swift Reservoirs.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average
MISSOURI RIVER Virgelle (at) (21)	4550 3950	105 106	Apr-Sept Apr-July	4342 3742	
SOUTH FORK JUDITH RIVER Utica (near)	14.0 12.8	94 93	Apr-Sept Apr-July	14.9 13.7	
MISSOURI RIVER Landusky (near) (21)	4950 4330	104 106	Apr-Sept Apr-July	4739 4068	
NORTH FORK MUSSELSHELL RIVER Delpine (near)	6.2 5.3	100 98	Apr-Sept Apr-July	6.2 5.4	
SOUTH FORK MUSSELSHELL RIVER Martinsdale (above)	46.0 44.0	92 93	Apr-Sept Apr-July	50.1 47.3	
MISSOURI RIVER Fort Peck Dam (below) (22)	4900 4300	106 106	Apr-Sept Apr-July	4598 4069	
MILK RIVER Eastern Crossing (at)	275	96	Mar-Sept	286	
MISSOURI RIVER Wolf Point (near) (22)	5250 4650	107 107	Apr-Sept Apr-July	4898 4361	
MISSOURI RIVER Williston, N.D. (near) (29)	11900 10740	101 103	Apr-Sept Apr-July	11778 10437	

## SASKATCHEWAN RIVER BASIN

ST. MARY RIVER Babb (near) (30)	500 425	114 115	Apr-Sept Apr-July	438 371	
------------------------------------	------------	------------	----------------------	------------	--

- (21) Adjusted for storage in Canyon Ferry and Tiber Reservoirs.  
 (22) Adjusted for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.  
 (29) Adjusted for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Bill, Boysen and Yellowtail Reservoirs. Sum Yellowstone River near Sidney and Missouri River near Culbertson.  
 (30) Adjusted for storage in Lake Sherburne.





# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average

## YELLOWSTONE RIVER BASIN

YELLOWSTONE RIVER					
Corwin Springs (at)	2120	106	Apr-Sept	1485	1996
	1780	107	Apr-July	1231	1662
YELLOWSTONE RIVER					
Livingston (near)	2420	104	Apr-Sept		2317
	2030	105	Apr-July		1926
BOULDER RIVER					
Big Timber (at)	385	102	Apr-Sept		379
	360	107	Apr-July		350
STILLWATER RIVER					
Absarokee (near) (25)	550	93	Apr-Sept		591
	470	95	Apr-July		494
CLARKS FORK RIVER					
Belfry (near)	605	100	Apr-Sept		607
	555	102	Apr-July		546
ROCK CREEK					
Red Lodge (near)	109	99	Apr-Sept	80.6	110
	85.0	101	Apr-July	55.3	84.0
YELLOWSTONE RIVER					
Billings (at)	4260	100	Apr-Sept	3588	4246
	3700	102	Apr-July	2994	3613
BIG HORN RIVER					
St. Xavier (near) (26)	1850	100	Apr-Sept	1912	1849
	1720	101	Apr-July	1567	1706
LITTLE BIG HORN RIVER					
Lodgegrass (near) (28)	107	73	Apr-Sept		146
	95.0	74	Apr-July		129
YELLOWSTONE RIVER					
Miles City (at) (27)	6350	100	Apr-Sept		6378
	5650	102	Apr-July		5555
YELLOWSTONE RIVER					
Sidney (near) (27)	6600	99	Apr-Sept		6665
	5920	100	Apr-July		5895

(25) Adjusted for storage in Mystic Lake

(26) Adjusted for storage in Buffalo Bill, Boysen, Bull Lake and Yellowtail Reservoirs.

(27) Adjusted for storage in Buffalo Bill, Boysen and Yellowtail Reservoirs.

(28) Sum Little Big Horn below Pass Creek and Lodgegrass Creek near Wyola.



# SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average
ABUNDANCE LAKE	8800	2/24	63	22.6	10.9	17.7
ADROSE	6480	3/02	52	14.2	9.6	11.7
ARCH FALLS	7350	2/26	33	9.4	7.0	10.9
AVALANCHE	7100	3/01	58	19.9	11.2	19.6
BAID EAGLE PEAK	5700	3/01	203	81.2	42.2	60.1
BAID RIDGE	7500	2/26	31	8.6	7.9	11.3
BAMFIELD MOUNTAIN	5600	2/26	86	31.0	16.7	23.2
BAMFIELD MOUNTAIN PILLOW	5600	2/26	SP	27.0	14.6	19.4
BREE CREEK	5500	3/01	164	65.6	29.7	43.6
BRED MOUNTAIN	4600	3/01	132	47.5	19.9	34.6
BREE TRAIL	3800	3/01	40	13.1	1.6	10.5
BASSON PEAK	5150	2/28	43	12.4	5.2	10.5
BATTLE RIDGE	6020	2/28	18	6.1	-	7.0
BEAR BASIN	8150	2/25	68	22.3	12.5	19.4
BEAR PAW SKI AREA	5200	2/26	26	6.8	2.0	6.3
BERRY MEADOW	7000	2/25	27	7.7	3.7	7.5
BIG CREEK	6750	2/27	132	51.7	31.4	41.7
BIG SNOWY	7150	3/01	54	18.8	10.8	15.0
BIG SPRINGS (10)	6500	2/26	69	22.3	14.7	18.6
BLACK BEAR	7950	2/28	126	48.2	28.4	-
BLACK BEAR PILLOW	7950	2/28	SP	41.4	25.9	-
BLACK CANYON (10)	7850	2/26	103	39.8	26.0	29.4
BLACK MOOSE (10)	8120	2/26	117	46.0	30.4	36.2
BLACK PINE	7100	2/26	45	15.8	8.6	11.9
BLACK PINE PILLOW	7100	2/26	SP	12.7	8.1	11.7
BLOODY DICK	7600	2/28	43	13.0	6.1	12.1
BOTS BOTS	8000	2/25	20	4.6	4.6	-
BOULDER MOUNTAIN	7950	2/25	69	23.0	10.4	16.3
BOY RIVER #1 (AL)	5100	2/25	37	10.0	5.4	8.1
BOXELDER CREEK	5100	2/26	34	6.6	2.8	-
BRANHAM LAKES	8850	3/02	96	35.3	16.2	25.9
BRIDGER HOLL	7250	2/28	64	23.4	14.8	26.1
BRIDGER HOLL PILLOW	7250	2/28	SP	22.9	13.7	24.3
BRISTOW CREEK	3900	2/26	49	14.8	8.3	13.7
BUSH CREEK TIMPER	5000	2/25	37	11.0	5.8	10.2
BULL MOUNTAIN	6600	2/26	23	6.0	-	-
CABIN CREEK	5200	2/27	26	6.0	4.6	7.2
CALL ROAD	8050	2/24	43	12.6	8.5	9.8
CALVERT CREEK	6450	3/01	46	13.2	7.0	9.1
CAMP CREEK (10)	6800	2/28	30	8.0	7.7	9.0
CAMP MISERY	6400	3/01	172	67.2	35.4	42.2
CAMP SENIA	7890	2/25	12	2.6	5.1	5.2
CANYON (WY)	7750	2/28	49	14.0	11.9	13.9
CARROT BASIN	9000	3/04	110	4.8	26.6	32.3
CARROT BASIN PILLOW	9000	3/04	SP	30.6	-	23.9
CARTER CREEK	7400	3/03	24	4.8	4.0	4.4
CEDAR GROVE	4100	3/01	51	14.8	5.0	11.6
CHATEAU LAWN #8 (AL)	5700	2/25	45	13.0	10.0	9.2





# SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
					Last Year	Average
NAME	Elevation					
CHESSMAN RESERVOIR	6200	3/03	14	3.7	1.1	3.1
COLF CREEK	7850	3/01	34	10.2	-	-
COMBINATION	5600	2/26	23	7.2	3.0	6.7
COMBINATION PILLOW	5600	2/26	SP	5.6	3.8	-
COOKE STATION	8150	2/23	59	16.8	12.2	17.6
COPPER BOTTOM	5200	3/01	46	14.6	5.8	-
COPPER CAMP	6950	3/01	93	34.3	17.9	-
COPPER CREEK	5700	3/01	48	16.3	7.4	15.4
COPPER LAKE CREEK	6100	3/01	73	25.9	14.5	-
COPPER MOUNTAIN	7700	2/28	37	10.5	7.2	10.0
COYOTE HILL	4200	2/28	38	12.2	3.8	10.4
CREECH MOUNTAIN	8400	2/22	36	8.8	5.6	9.2
CRYSTAL LAKE	6100	3/01	40	12.4	8.8	12.3
DAD CREEK LAKE	8400	2/24	44	12.0	8.1	11.9
DAISY PEAK	7600	3/01	39	10.5	6.9	10.3
DARKHORSE LAKE	8600	2/24	75	27.8	16.4	24.2
DAVIS CREEK	5400	2/27	96	33.4	19.6	23.8
DEADMAN CREEK	6450	2/27	39	11.2	6.2	11.4
DEADMAN CREEK PILLOW	6450	2/27	SP	10.6	4.8	9.8
DESERT MOUNTAIN	5600	2/26	67	19.4	10.7	14.7
DEVILS SLIDE	8100	2/26	56	18.7	12.6	20.2
DIVIDE	7800	2/24	36	10.6	8.1	10.0
DIY HILL	6400	3/01	32	9.0	-	-
EAST FORK R.S.	5400	2/26	27	8.4	5.0	6.7
EL DORADO MINE	7800	2/27	56	18.7	12.3	18.7
ELK HORN SPRINGS	7800	2/26	34	9.2	4.4	8.4
ELK PEAK	8000	2/26	46	14.0	8.7	15.8
FATTY CREEK	5500	2/27	85	27.5	15.4	21.0
FISHER CREEK	9100	2/23	110	39.7	23.8	32.6
FISHER CREEK PILLOW	9100	2/23	SP	35.7	22.3	30.5
FLEECER RIDGE	7500	2/26	41	11.6	-	-
FOOLHEN	8280	2/24	53	17.6	9.5	15.6
FOUR MILE	6900	3/04	35	10.2	5.4	7.6
FRED BURK PASS	8000	2/27	71	21.1	14.1	23.5
FROHNER MEADOWS	6480	2/26	27	8.6	4.4	-
FROHNER MEADOWS PILLOW	6480	2/26	SP	8.1	5.1	-
GARVER CREEK	4250	2/27	51	14.4	9.4	12.3
GARVER CREEK PILLOW	4250	2/27	SP	12.8	-	10.7
GIBBONS PASS	7100	2/26	77	28.5	15.8	20.5
GOAT MOUNTAIN	7000	3/03	46	12.1	5.2	10.3
GOLD CREEK LAKE	7200	2/27	47	15.2	10.6	13.8
GOLD STONE	8100	2/28	51	16.2	8.0	15.3
GRASSHOPPER	7000	2/26	16	4.4	4.4	5.1
GRAVES CREEK	4300	2/25	77	23.4	12.5	17.9
GRIFFIN CREEK DIVIDE	5150	2/27	46	14.6	8.6	11.6
GRIZZLY PEAK	8400	2/28	33	9.3	12.2	13.5
HAWKINS LAKE	6450	2/27	117	41.9	24.4	28.3
HAWKINS LAKE PILLOW	6450	2/27	SP	40.6	21.1	26.4
HEART LAKE TRAIL	4800	3/01	89	28.6	8.2	21.2
HERGEN DAM	6550	2/28	37	11.5	8.2	10.8



# SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average
ABEL ROAD & DIVIDE	5770	3/01	114	41.8	24.8	29.1
ADLER BROOK	4530	3/01	38	10.3	3.6	10.5
ALCO MEADOW	6600	2/26	30	8.6	7.2	9.8
ALCOO BASIN	6000	3/01	169	63.4	31.5	46.1
ALCOO CREEK	5900	3/01	163	58.6	29.4	43.2
ALCOO CANYON DIVIDE	5800	2/26	54	15.7	10.2	16.3
INDEPENDENCE	7850	3/01	53	18.0	10.6	17.5
INTERGAARD	6450	3/01	30	9.0	4.8	7.7
ISLAND PARK (ID)	6310	2/27	59	17.7	12.0	14.7
JACK CREEK	7500	3/05	21	5.5	3.6	4.8
JACKIE LAKE TRAIL	7200	2/28	36	10.5	5.8	8.6
JOHNSON PARK	6450	3/01	22	6.0	3.8	7.4
KIDGORE (ID)	6200	2/27	34	9.9	9.5	10.1
KING CREEK SADDLE	4550	3/01	0	.0	.0	-
KING SPRINGS	4150	3/01	0	.0	.0	-
KINGS HILL	7500	2/28	50	14.5	6.4	12.5
KISHEGHEEN	3890	2/26	34	9.8	5.3	9.3
KIRKENS CAMP	3720	2/26	0	.0	.0	-
LAKE CAMP (WY)	7650	2/28	36	8.1	5.9	8.2
LAKE CREEK	6100	2/28	28	6.8	5.6	6.2
LAKEVIEW CANYON	6930	2/28	32	8.6	6.6	11.1
LAKEVIEW RIDGE	7400	2/28	27	7.2	6.0	9.9
LATHAM SPRINGS (ID)	7650	2/26	103	37.6	26.8	27.9
LENNI PASS	7480	2/27	28	7.5	4.9	7.9
LENNI RIDGE	8100	2/27	39	10.1	5.8	8.9
LICK CREEK	6860	2/26	26	7.0	6.9	8.8
LICK CREEK PILLOW	6860	2/26	SP	5.3	5.2	8.3
LITTLE PARK	7400	2/25	53	16.9	8.8	14.4
LOGAN CREEK	4300	2/25	28	7.6	4.0	8.1
LONG PASS (ID)	5230	2/28	107	36.3	17.3	28.5
LOOKOUT (ID)	5250	2/26	130	43.7	17.9	32.7
LOST HORSE	5940	2/25	110	37.6	19.9	29.0
LOST SOUL	4800	2/26	64	21.9	11.5	16.6
LOWER TWIN	7900	3/04	71	24.4	12.5	18.6
LUPRECHT FLUME	4800	3/01	26	8.0	3.0	6.5
LUPRECHT FLUME PILLOW	4800	3/01	SP	7.7	3.1	6.2
LUPRECHT FOREST # 3	5450	3/03	30	8.0	3.7	7.0
LUPRECHT FOREST # 4	4650	3/03	16	4.6	1.6	3.7
LUPRECHT FOREST # 6	4040	3/03	21	5.6	1.4	4.3
LUPRECHT HYDROPLOT	4200	3/01	25	8.0	2.6	5.4
LUPINE CREEK (WY)	7300	2/28	38	9.7	7.4	9.8
MADISON PLATEAU	7750	2/28	67	24.0	15.6	18.6
MADISON PLATEAU PILLOW	7750	2/28	SP	24.4	15.7	20.0
MARIAS PASS	5250	2/26	62	20.2	8.7	16.9
MAYNARD CREEK	6210	2/28	48	16.2	11.5	16.9
MAYNARD CREEK PILLOW	6210	2/28	SP	8.7	4.5	10.1
MIDDLE MILL CREEK	7850	3/02	60	18.5	9.4	13.7
MILL CREEK	7500	2/22	35	8.7	7.4	11.7
MINERAL CREEK	4000	3/01	84	24.4	11.7	18.4
MIRROR LAKE #6 (AL)	6600	2/25	42	12.5	8.2	10.3





# SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average
ACQUINET PEAK	8800	3/01	77	26.1	15.2	24.4
ADAMS CREEK (ID)	6200	2/28	61	19.8	10.3	15.2
ADAMS LOCKHART	6400	3/05	84	26.0	10.2	21.0
ADAMS LOCKHART PILLOW	6400	3/05	SP	22.7	11.7	18.7
ADAMS FISHERMAN #10 (AL)	5000	2/27	29	7.7	3.7	5.3
ADAMS LAKE	7650	3/01	67	21.8	11.9	19.2
ADAMS WORLD	6900	2/27	41	11.4	7.6	13.1
ADAMS PERCE CAMP	5580	2/22	64	17.6	8.2	13.0
ADAMS PERCE CREEK	6500	2/28	28	7.5	4.6	6.3
ADAMS PERCE PASS	6570	2/22	67	19.3	10.8	14.3
ADAMS CREEK	3600	3/01	17	4.8	.9	-
ADAMS BASIN (WY)	7500	2/27	36	9.5	7.6	9.9
ADAMS FR. ELK CREEK	6250	3/01	41	12.0	6.7	10.5
ADAMS FR. ELK CREEK FILL	6250	3/01	SP	11.3	7.2	10.9
ADAMS FORK JOCKO	6330	2/28	121	46.3	28.6	42.5
ADAMS MEADOW	7500	3/04	38	10.0	4.6	7.0
ADAMS ENTRANCE	7400	2/28	28	7.4	4.5	8.4
ADAMS ENTRANCE PILL.	7400	2/28	SP	7.3	5.8	8.3
ADAMS NOTCH	8500	2/24	50	16.9	10.3	13.3
ADAMS PARK	7150	3/01	52	16.8	-	-
ADAMS MEADOWS	7200	2/26	32	8.2	6.3	-
ADAMS MEADOWS PILLOW	7200	2/26	SP	8.2	6.1	-
ADAMS PIN LOWER	6200	3/01	0	.0	1.7	-
ADAMS PIN MIDDLE	7250	3/01	21	7.0	6.6	-
ADAMS PIN UPPER	8100	3/01	50	15.7	12.3	-
ADAMS GROUNDS	6200	2/28	20	5.9	2.1	4.1
ADAMS PASS	7200	3/01	16	4.3	2.6	4.5
ADAMS UPPER #2 (AL)	5300	2/26	37	10.5	7.4	8.5
ADAMS CREEK	5100	2/28	122	40.8	21.8	33.7
ADAMS CREEK PILLOW	5100	2/28	SP	41.5	17.3	28.7
ADAMS R.S.	6500	2/28	16	4.6	6.1	6.5
ADAMS PARK	7150	2/27	46	15.1	10.3	11.8
ADAMS LION	7100	2/26	51	12.2	8.8	14.5
ADAMS MOUNTAIN	6000	2/28	77	26.5	13.2	17.4
ADAMS CREEK	5600	3/01	24	6.9	6.4	8.3
ADAMS PEAK	8000	2/25	45	13.4	7.8	13.7
ADAMS PEAK PILLOW	8000	2/25	SP	13.2	7.8	13.2
ADAMS BOY	4700	2/26	17	4.3	1.2	4.6
ADAMS BOY PILLOW	4700	2/26	SP	2.5	1.5	5.0
ADAMS AWEA	6550	2/28	33	11.6	8.8	13.3
ADAMS MOUNTAIN	7940	2/26	80	27.4	15.3	22.7
ADAMS MOUNTAIN PILLOW	7940	2/26	SP	28.5	15.4	24.0
ADAMS MOUNTAIN (ID)	8710	2/27	90	33.3	22.9	30.4
ADAMS CREEK	8300	2/27	63	21.6	16.1	21.3
ADAMS FALLS	8100	2/26	67	23.3	15.8	24.2
ADAMS FALLS PILLOW	8100	2/26	SP	19.4	13.5	20.8
ADAMS SUMMIT	7260	2/25	75	26.0	15.8	23.4
ADAMS LAKE	8750	2/24	75	29.0	20.6	24.8
ADAMS ROCK MOUNTAIN	7100	2/26	52	17.4	8.4	14.6
ADAMS MINE	6460	3/02	43	11.2	5.8	9.1





# SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average
SOUTH FORK SEIELDS	8100	2/28	60	20.6	14.8	21.4
SPUR PARK	8000	2/27	63	20.8	10.6	19.6
SPUR PARK HOLLOW	8100	2/27	SP	21.5	11.3	20.0
STAHL PEAK	6050	2/25	140	51.0	33.5	37.6
STEMPLE PASS	6600	3/01	37	9.2	4.4	9.8
STONE LAKE	7780	2/26	38	12.2	6.8	11.7
STUART CILI	6500	3/01	23	7.1	3.8	6.3
STUART MOUNTAIN	7400	3/02	104	38.2	22.6	28.9
SUCKER CREEK	3960	2/26	0	.0	.0	-
SYLVAN PASS (WY)	7100	2/27	46	14.0	9.1	11.9
TARGHEE PASS (ID)	7000	2/27	42	12.3	8.0	13.5
TAYLOR ROAD	4080	2/26	4	.8	.6	-
TEN MILE LOWER	6600	3/04	32	8.0	4.2	6.9
TEN MILE MIDDLE	6800	3/04	47	11.6	5.8	10.4
TEN MILE UPPER	8000	3/04	53	15.3	7.7	12.7
TEREE CREEK	8000	2/28	49	14.6	9.2	14.3
TEREE CREEK HOLLOW	8000	2/28	SP	11.8	8.0	-
THUMB DIVIDE (WY)	7900	2/26	63	20.3	12.1	19.0
TIMBERLINE CREEK	8850	2/23	38	9.7	9.2	12.6
TRAIL CREEK	7090	2/27	27	7.2	4.4	7.1
TV MOUNTAIN	6800	2/27	66	20.6	11.7	17.0
TWELVEMILE CREEK	5600	2/25	85	29.0	13.2	18.8
TWELVEMILE CREEK HOLLOW	5600	2/25	SP	23.7	10.2	16.4
TWENTY-ONE MILE	7150	2/28	57	18.6	10.0	16.1
TYN LAKES	6510	2/25	136	48.0	26.2	37.2
TYN LAKES HOLLOW	6400	2/25	SP	48.4	24.3	37.7
VALLEY VIEW (ID)	6500	2/27	44	14.1	8.0	15.4
VADRON	5600	3/05	43	12.2	3.6	11.2
VADRON HOLLOW	5600	3/05	SP	13.3	5.9	11.9
WEASEL DIVIDE	5450	2/25	120	43.5	26.4	32.6
WEST YELLOWSTONE	6700	2/28	42	12.8	8.0	10.6
WEST YELLOWSTONE HOLLOW	6700	2/28	SP	8.6	6.0	7.7
WHISKY CREEK	6800	2/28	65	22.7	14.3	18.5
WHISKY CREEK HOLLOW	6800	2/28	SP	17.0	12.2	-
WHITE ELEPHANT (ID)	7700	2/27	60	28.6	17.2	-
WHITE HILL	8700	2/23	84	27.8	17.1	24.1
WHITE HILL HOLLOW	8700	2/23	SP	24.0	-	-
WHITE PINE RIDGE	8850	2/24	22	4.9	4.1	4.7
WILLOW CREEK	6500	3/01	19	5.0	-	-
WOLVERINE (WY)	7650	2/28	37	10.4	7.6	-
WRONG CREEK	5700	2/28	53	15.4	5.4	14.6
WRONG RIDGE	6800	3/01	73	21.5	9.5	19.3



## SNOW

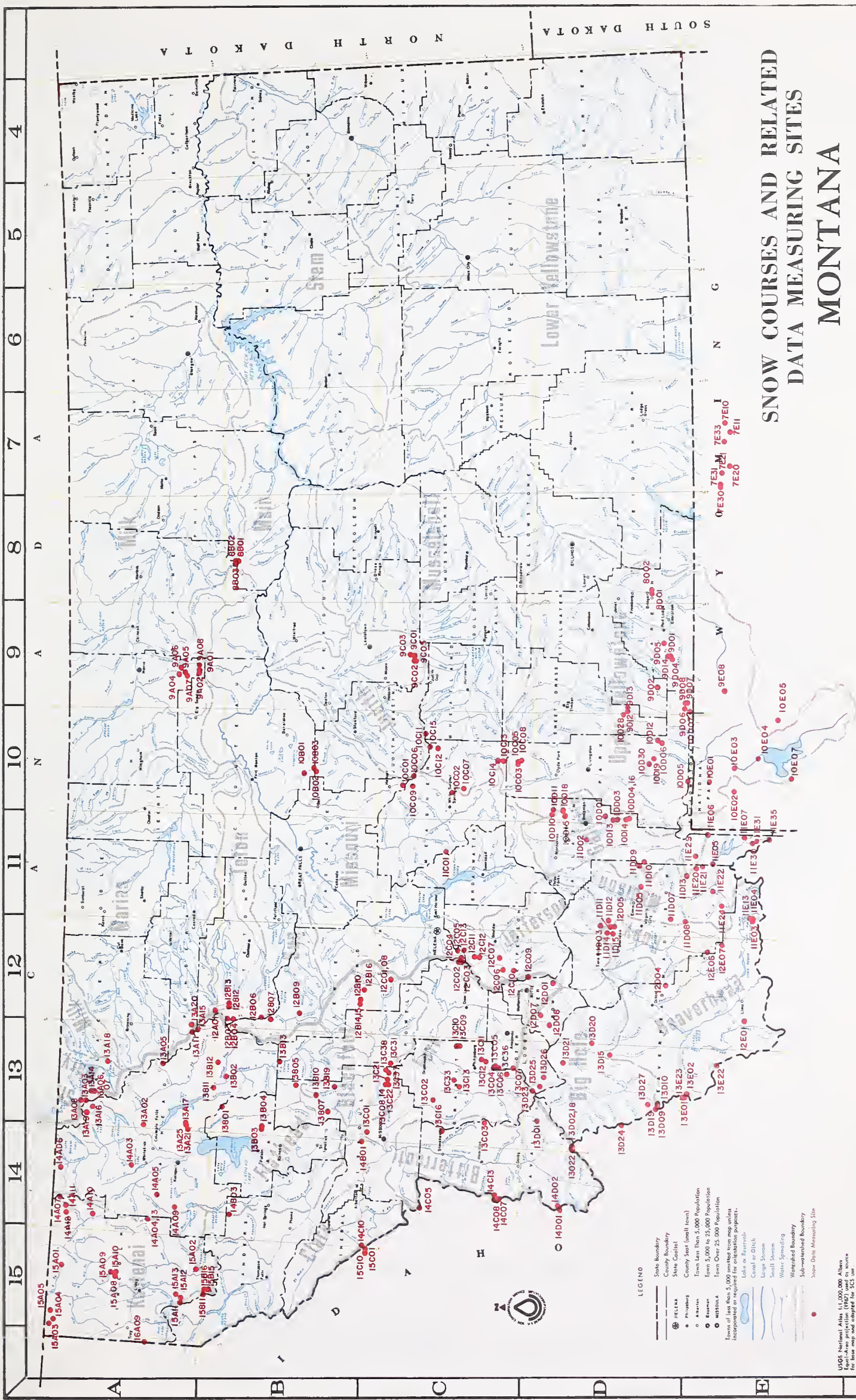
DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average

LATE ARRIVING DATA

Badger Pass	6900	3/07	140	49.8	24.2	37.0
Beaver Lake	5900	3/07	95	28.4	11.8	21.3
Big Sky M. V.	7450	2/28	52	16.4	8.5	-
Blue Lake	5900	3/07	99	31.0	14.8	26.4
Five-Bull	5700	3/07	26	6.1	2.6	7.0
Freight Creek	6000	3/07	58	18.1	6.0	14.5
Gunsight Lake	6300	3/07	138	48.6	26.2	39.1
Spotted Bear Mountain	7000	3/07	62	17.9	8.8	14.7
Trinkus Lake	6100	3/07	140	52.5	32.0	39.9
Twin Creeks	3580	3/07	52	15.8	3.4	12.3
Upper Holland Lake	6200	3/07	118	39.4	21.7	33.7

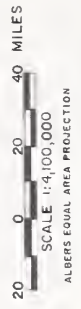






# SNOW COURSES AND RELATED DATA MEASURING SITES MONTANA

1974



## LEGEND

- State Boundary
- County Boundary
- State Capitol
- County Seat (small town)
- Population
- Town Less Than 5,000 Population
- Town 5,000 to 25,000 Population
- Town Over 25,000 Population
- Missoula
- Towns of less than 5,000 omitted from map unless incorporated or required for orientation purposes.
- Lake or Reservoir
- Canal or Ditch
- Large Stream
- Small Stream
- Water Spreading
- Waterflood Boundary
- Sub-watershed Boundary
- Snow Data Measuring Site

USGS National Atlas 1:4,100,000 Albers Equal Area projection. Map data from various sources. Data may not be complete for some sites.



INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

Drainage Basin & Snow Course	Number	Elev.	Sec.	Typ.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
---------------------------------	--------	-------	------	------	-------	-----------------	-----------------------	----------------

SNOW COURSES

COLUMBIA RIVER BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Typ.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
KOOTENAI RIVER	15A11	5700	6	27N	31W	1969	3,4,5,53,6	1
	15A08	5600	4	32N	30W	1969	2,3,4,5,53,6	1
	15A09	5600	4	32N	30W	1969	3,4,5,53,6	1
	15B16	4600	31	26S	30W	1966	3,4,5,53	2
	15B15	3600	5	25N	30W	1965	3,4,5,53	2
	15A10	3900	2	32N	30W	1969	2,3,4,5,53,6	1
	14A04	5000	12	30N	26W	1937	3,4,5	1,2
	14A13	5000	12	30N	26W	1969	3,4,5	1
	15A13	5000	5	25N	30W	1969	2,3,4,5,53,6	1
	15A14	5000	5	25N	30W	1969	2,3,4,5,53,6	1
	15A05	4250	18	37N	32W	1969	2,3,4,5,53,6	1
	15A11	4300	1	36N	25W	1937	3,4,5,53,6	1
	15A11	4300	1	36N	25W	1937	3,4,5,53,6	1
	15A09	4300	18	37N	33W	1969	2,3,4,5,53,6	1
	15A09	4300	18	37N	33W	1969	2,3,4,5,53,6	1
FLATHEAD RIVER	13A09	5150	31	25N	25W	1961	3,4,5	1,5
	13A11	5900	31	25N	11W	1964	3,4,5	1
	13B03	6750	7	22N	18W	1941	3,4,5	1
	13A17	6400	30	28N	18W	1941	3,4,5	1
	13A02	5600	24	31N	19W	1937	3,4,5	6
	13B04	5300	8	22N	18W	1962	3,4,5	1,2
	13A19	6300	12	35N	18W	1968	3,4,5	1
	13B12	6300	10	26N	13W	1966	3,4,5	1
	14A03	5770	35	30N	22W	1942	1,2,3,4,5,53,6	2
	13B13	4530	18	21N	13W	1951	1,2,3,4,5	1
	14A06	3890	14	37N	22W	1954	3,4	6
	14A05	3430	34	30N	24W	1937	3,4,5	1
	13A05	5250	34	30N	14W	1934	1,2,3,4,5	1,2
	13A06	5250	34	30N	14W	1934	1,2,3,4,5	1,2
	13A25	6040	25	28N	19W	1974	3,4,5	1,2
CLARK FORK RIVER	13A21	3600	35	28N	19W	1970	3,4,5	1,2
	13B07	6330	3	17N	17W	1941	3,4,5,53,6	1,5
	13B02	7000	23	25N	15W	1948	1,2,3,4,5	1
	13B01	6100	9	25N	17W	1948	3,4,5	1
	13B11	5300	25	26N	16W	1951	1,2,3,4,5	1
	13B05	6200	23	26N	15W	1948	3,4,5	1
	13C13	7100	26	8N	15W	1959	1,2,3,4,5,53,6	1
	12B16	5200	15	18N	14W	1971	1,2,3,4,5	1
	12B14	5200	15	18N	8W	1971	3,4,5	1,2
	12B10	5700	3	15N	9W	1971	3,4,5	1,2
	12B10	5700	3	15N	9W	1962	3,4,5	1,2
	13B10	4200	3	15N	9W	1962	3,4,5	1,2
	13B09	7800	23	18N	16W	1967	1,2,3,4,5	1,2
	13C11	8000	12	6N	13W	1957	3,4,5	1
	13C10	7200	14	6N	12W	1949	3,4	1
GALLATIN RIVER	14C10	4800	11	16N	27W	1965	1,2,3,4,5,53,6	1,2
	15C10	6000	17	16N	27W	1967	1,2,3,4,5,53,6	1,2
	15C10	6000	17	16N	27W	1967	1,2,3,4,5,53,6	1,2
	13C04	6650	16	5N	13W	1936	1,2,3,4,5,53,6	1,2
	13C38	4800	13	5N	13W	1944	1,2,3,4,5	8
	13C21	5450	19	13N	14W	1951	1,2,3,4,5	8
	13C22	4650	23	13N	15W	1951	1,2,3,4,5	8
	13C08	4060	11	13N	15W	1951	1,2,3,4,5	8
	13C17	4200	22	13N	14W	1971	1,2,3,4,5	8
	13C17	4200	22	13N	14W	1971	1,2,3,4,5	8
	13C17	4200	22	13N	14W	1971	1,2,3,4,5	8
	13C17	4200	22	13N	14W	1971	1,2,3,4,5	8
	13C17	4200	22	13N	14W	1971	1,2,3,4,5	8
	13C12	7200	2	4N	14W	1971	1,2,3,4,5	2
	13C12	7100	22	6N	13W	1958	3,4,5	1

ST. MARY RIVER

HUDSON BAY BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Typ.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
KOOTENAI RIVER	13C16	6480	28	9N	18W	1960	3,4,5	1
	13C01	5400	16	2N	17W	1937	3,4	5
	13C02	5100	4	2S	17W	1937	3,4	5
	13C03	5100	4	2S	17W	1937	3,4	5
	14C02	5580	19	15S	23W	1937	3,4,5	1,3
	14C01	6370	25	15S	24W	1937	3,4,5	1
	13C22	7940	5	2S	19W	1965	1,2,3,4,5,53,6	1
	14C13	5600	34	5N	23W	1968	1,2,3,4,5,53,6	1
	14C13	5600	34	5N	23W	1968	1,2,3,4,5,53,6	1
	14C08	6510	32	5N	23W	1960	1,2,3,4,5,53,6	1
FLATHEAD RIVER	13C16	6480	28	9N	18W	1960	3,4,5	1
	13C01	5400	16	2N	17W	1937	3,4	5
	13C02	5100	4	2S	17W	1937	3,4	5
	13C03	5100	4	2S	17W	1937	3,4	5
	14C02	5580	19	15S	23W	1937	3,4,5	1,3
	14C01	6370	25	15S	24W	1937	3,4,5	1
	13C22	7940	5	2S	19W	1965	1,2,3,4,5,53,6	1
	14C13	5600	34	5N	23W	1968	1,2,3,4,5,53,6	1
	14C13	5600	34	5N	23W	1968	1,2,3,4,5,53,6	1
	14C08	6510	32	5N	23W	1960	1,2,3,4,5,53,6	1
BEAVERHEAD RIVER	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1

ST. MARY RIVER

HUDSON BAY BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Typ.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
KOOTENAI RIVER	13C16	6480	28	9N	18W	1960	3,4,5	1
	13C01	5400	16	2N	17W	1937	3,4	5
	13C02	5100	4	2S	17W	1937	3,4	5
	13C03	5100	4	2S	17W	1937	3,4	5
	14C02	5580	19	15S	23W	1937	3,4,5	1,3
	14C01	6370	25	15S	24W	1937	3,4,5	1
	13C22	7940	5	2S	19W	1965	1,2,3,4,5,53,6	1
	14C13	5600	34	5N	23W	1968	1,2,3,4,5,53,6	1
	14C13	5600	34	5N	23W	1968	1,2,3,4,5,53,6	1
	14C08	6510	32	5N	23W	1960	1,2,3,4,5,53,6	1
FLATHEAD RIVER	13C16	6480	28	9N	18W	1960	3,4,5	1
	13C01	5400	16	2N	17W	1937	3,4	5
	13C02	5100	4	2S	17W	1937	3,4	5
	13C03	5100	4	2S	17W	1937	3,4	5
	14C02	5580	19	15S	23W	1937	3,4,5	1,3
	14C01	6370	25	15S	24W	1937	3,4,5	1
	13C22	7940	5	2S	19W	1965	1,2,3,4,5,53,6	1
	14C13	5600	34	5N	23W	1968	1,2,3,4,5,53,6	1
	14C13	5600	34	5N	23W	1968	1,2,3,4,5,53,6	1
	14C08	6510	32	5N	23W	1960	1,2,3,4,5,53,6	1
BEAVERHEAD RIVER	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1
	12B04	7400	22	8S	7W	1963	2,3,4	11
	13B10	7600	12	8S	16W	1948	3,4,5	1

ST. MARY RIVER

HUDSON BAY BASIN

Copper Camp	12B14	6950	3	15N
Copper Creek	12B10	5700	1	15N
Copper Lake Creek	12B15	6100	3	15N
Coyote Hill	13B10	4700	12	18N
El Dorado Nine	13C09	7800	23	8N
Fred Burr Pass	13C11	8000	12	6N
Gold Creek Lake	13C10	7700	14	8N
Heart Lake Trail	14C10	4800	11	14N

# Agencies and Organizations Cooperating in Montana Snow Surveys

## GOVERNMENT AGENCIES

### Canada:

Water Survey of Canada, Calgary, Department of the  
Environment  
Water Resources Service, Department of Lands, Forests  
and Water Resources, British Columbia

### Federal:

Department of the Army  
Corps of Engineers  
U.S. Department of Agriculture  
Forest Service  
Soil Conservation Service  
U.S. Department of Commerce  
NOAA, National Weather Service  
U.S. Department of the Interior  
Bonneville Power Administration  
Bureau of Indian Affairs  
Bureau of Reclamation  
Bureau of Sports Fisheries and Wildlife  
Geological Survey  
National Park Service

## STATE

Montana Association of Conservation Districts  
Montana Department of Fish and Game  
Montana Department of Natural Resources and  
Conservation  
Montana Water Resources Board  
Montana State University - Agricultural Experiment  
Station  
North Montana Branch Station - Agricultural Exper-  
iment Station  
University of Montana - School of Forestry

## PRIVATE

Montana Power Company

Other organizations and individuals furnish valuable  
information for snow survey reports. Their cooperation  
is gratefully acknowledged.



UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
P.O. Box 98  
BOZEMAN, MONTANA 59715  
OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID  
U. S. DEPARTMENT OF  
AGRICULTURE  
AGR-101



**FIRST CLASS MAIL**

USDA - NATIONAL AGRICULTURAL LIBRARY  
CURRENT SERIAL RECORD  
BELTSVILLE, MD. 20705

## FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Furnishes the basic data  
necessary for forecasting  
water supply for irrigation,  
domestic and municipal water  
supply, hydro-electric power  
generation, navigation,  
mining and industry

*"The Conservation of Water begins  
with the Snow Survey"*